



# STEM Racers



## Context (Background)



Your teacher plans really cool, hands-on activities in the classroom. And these activities make it fun to learn about Science, Technology, Engineering, and Math (STEM). But, there's a problem. These activities require lots of supplies. And, your teacher doesn't have enough funds to purchase what's needed. What if you and the teacher showed up at the next School Board or Parent-Teacher Association (PTA) meeting to request more funds for STEM activities? Can you **WOW** the members with one of the activities you've done in class to explore STEM?



## Challenge

Design a unique balloon-powered vehicle that can be launched across the meeting room floor. Your vehicle should travel as fast and far as possible. It must transport a written message to the School Board or PTA members. The message must convince them that these hands-on STEM activities deserve more financial support.

## Criteria and Constraints

1. Vehicle must use one or more balloons as a power source.
2. Balloon(s) must be able to be inflated using a balloon pump (to reduce germs).
3. Materials are limited to those that are available on the supply table. Do not exceed limits posted.
4. The written message must fit on a 3" x 5" index card. It must be securely attached to the vehicle. But, it must also be easily removed so it can be handed to the members. Use good written communication skills and include your name.
5. You must document your design process on the design log. Be sure to include a bill of materials to show how much it costs.
6. All designs will be tested before the meeting. STEM Racers will be weighed. Distances traveled by racers will be recorded. Vehicle costs will be reported. Data will be graphed and analyzed.

